Some Suggestions for HEER Office TGM Updates/Revisions

(Collected during 2004 to mid-2005)

Section 1: Introduction

- The flow diagram for the Overview of Response Process (Figure 1-1b) needs to be corrected to reflect current practice.

Section 4: Field Investigation

- Low flow pump technology should be used for purging groundwater wells and to collect groundwater samples for analyses. Guidance on low flow purging/sampling should address preferred flow rates, water chemistry parameters and criteria, appropriate types of pumps, and a field checklist for documentation.

- Need to provide expanded guidance on sampling strategies for soil and groundwater. Good site characterization, risk assessment, and remediation depend on good sampling data, and the guidance should describe the sampling strategy options and protocols recommended by the HEER Office.

- The guidance should describe general protocols for multi-increment soil sampling, including information on identifying decision units, how many increments to collect, collecting random increments, sampling tools, and lab sub-sampling procedures.

- Need to provide protocols for methane evaluation and remediation - methane hazards can be associated with areas of petroleum hydrocarbon contamination.

- The May 2005 EALs include soil gas and indoor air environmental concerns. Consequently, the TGM needs to incorporate appropriate protocols and methods for evaluating soil gas and indoor air.

- Guidance needs to specify the waiting period for sampling after a groundwater monitoring well has been installed. More guidance on preferred well screen lengths would also be helpful.

- Guidance should specify continuous soil boring cores to profile the geologic characteristics of sites, rather than just every 5 feet. Continuous cores may detect soil/gravel layers thinner than 5 feet that act as preferential pathways for contaminants.

- Guidance needs to be updated on protocols for the use of direct push technology for soil and groundwater monitoring.

- Guidance should specify the use of "loose ice" rather then "blue ice" for rapid sample cooling, especially when VOC samples are collected.

- Need to update protocols for head-space screening of soil samples in the field.

- The guidance needs to specify better documentation for Data Quality Objectives for sampling plans, and provide or reference good examples that could be followed.

- Need data on typical background levels of some contaminants in Hawaii, especially those whose background concentrations may be near action levels. In addition, guidance should be provided on how to address background in site investigations.

- The protocols for sampling VOCs in soil need to be updated. Guidance should specify preferred and optional methods currently recommended.

- The guidance needs to clarify that all soil sample analytical results need to be reported on a dry weight basis.

- Need to reference the Nov. 1993 EPA laboratory sub-sampling guidance for soil samples, and recommend laboratories follow these guidelines or equivalent.

- The well abandonment form needs to be incorporated into the TGM, and well abandonment procedures updated.

- Table 4-1, the Analytical Methods Table is outdated, and needs revisions to current methods.

- Labs should be encouraged to report analysis data within a certain range (instead of or in addition to a single estimated value) based on the results of their specific QC data performed with samples. This would simplify appropriate comparisons to environmental action levels.

- Based on HIOSH rules, need to clarify in the TGM when Hazardous Waste trained workers are required on sites that are under HEER Office oversight.

Section 5: Response Action Decisions

- The May 2005 Environmental Action Levels (EAL) document needs to be referenced in the TGM rather than the RBCA document currently described.

- Guidance needs to address a requirement for fines-fraction analyses for lead-contaminated soils in situations where exposure to children is a concern (e.g. land uses other than industrial).

- Protocols for the use and assessment of bioaccessibility of lead and arsenic in soils should be included in the TGM.

- The TGM should include more detailed guidelines or current referenced protocols for conducting ecological risk assessments.

- Guidelines on capping as a remediation method should be provided in the TGM. This would include the minimum depth of capping material required, when an impervious liner and drainage is required under a cap, and what provisions are needed to insure the integrity of the cap installed on a site.

- The TGM needs detailed guidelines on implementing institutional controls as part of a remediation action at a site. This would include how institutional controls are established, documented, tracked, and periodically evaluated.

Section 8: Community Relations and Public Participation

- The guidance should provide more standardized protocols for public participation activities. This would help ensure that a standard baseline for public participation is met for all appropriate projects, and adequate timelines and notification is provided for these projects.